



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 52103**

September 16, 2009 10:49:26 AM



Page 2

Item ID: D3954-3

Accept



Setup Start



Revision ID: A

Stop



Item Name: GWT Knob

Start Date: 09/16/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 2) 8 02/02/17 0.00				(x10)	4		
130  Mill Conv Conventional Milling Machine	Memo 1-OPEN TO TAP DRILL SIZE 37/64 S 2-TAP AS PER DWG D3954	0.00 0.00				10	0		
140  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 2) 8 02/02/30 0.00				(x10)	4		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 52103

September 16, 2009 10:49:26 AM



Page 3

Item ID: D3954-3	Accept		Setup	Start	
Revision ID: A				Stop	
Item Name: GWT Knob					
Start Date: 09/16/2009	Start Qty: 4.00				
Required Date: 09/25/2009	Req'd Qty: 4.00				
Reference:					
			Cust Item ID:		
			Customer:		

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  Powdercoat Powder Coating	Fire Red(Ref:4.3.5.10) per QSI005 4.3  Memo  START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____  ***MASK AS PER DWG****	0.00  0.00					09.10.13		PJO
160  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00		27	09/16/09				
170  Packaging Packaging	Identify as per dwg & Stock Location: ST 139D  Memo	0.00  0.00				MF 09-10-29			

W/O: 52103		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09.10.15	150	Change from red to Spray paint yellow with Bertrand CG1031B Permanent Change		09/10/15			 09.10.15

Part No: D3954-3 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 52103**

September 16, 2009 10:49:26 AM



Page 4

Item ID: D3954-3

Accept



Setup Start



Revision ID: A

Stop



Item Name: GWT Knob

Start Date: 09/16/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

09/10/29

YMF

09-10-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

September 16, 2009 11:11:11 AM

Page 1

Work Order ID: 52103



Parent Item: D3954-3RevA



Parent Item Name: GWT Knob

Start Date: 09/16/2009

Required Date: 09/25/2009

Comments:

Start Qty: 8.00

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M304B0.375X03.000		Purchased	No			100	f	7.5800	0.2339	1.		
M304 SS bar .375 x 3.00												

B 9-9-16

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

MAT

7.58

111369

7.58

111369

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



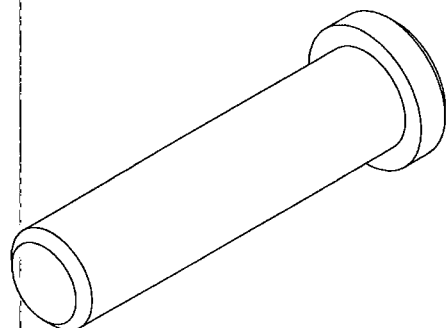
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

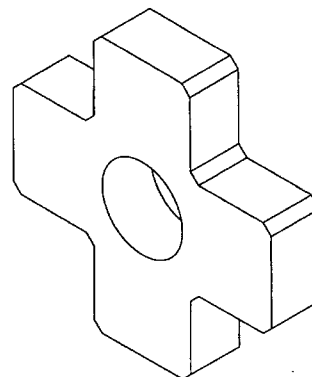
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

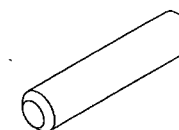


**D3954-1 GWT PIN**

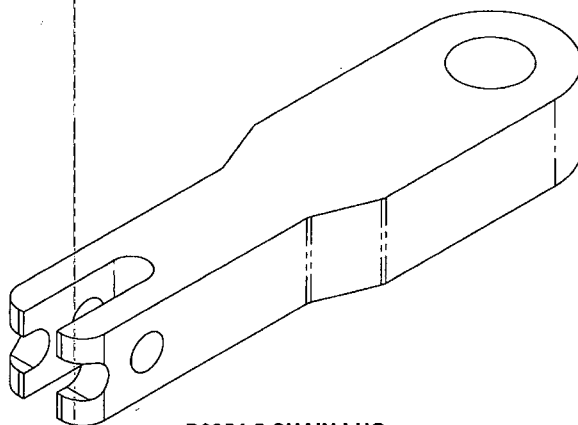
#52103



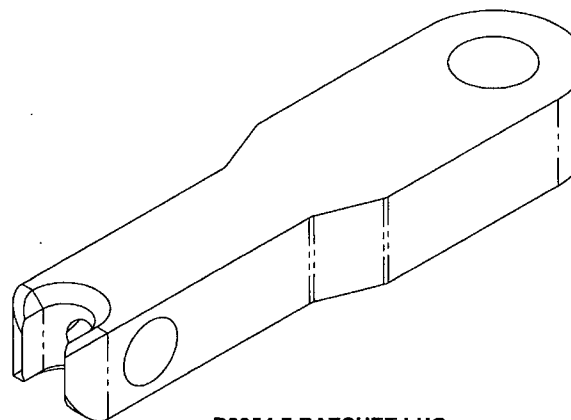
**D3954-3 GWT KNOB**



**D3954-9 GWT CHAIN PIN**





**D3954-5 CHAIN LUG**



**D3954-7 RATCHET LUG**

**RELEASED**  
09/05/02

A	NEW ISSUE		AJS	09.05.26
REV.	DESCRIPTION			BY DATE
DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	AJS			
CHECKED		DRAWING NO.	REV. A	
MFG. APPR.		D3954	SHEET 1 OF 3	
APPROVED		TITLE	SCALE	
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS	
DATE	09.05.26	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>		

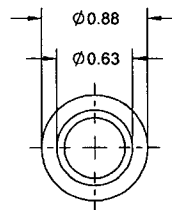
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

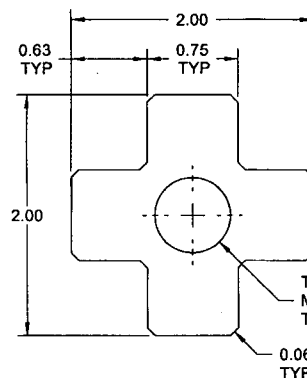
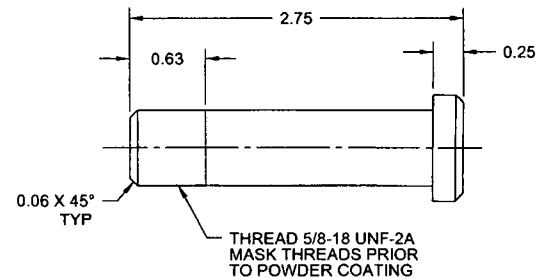
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

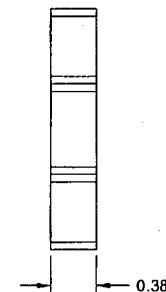


**D3954-1 GWT PIN**



**D3954-3 GWT KNOB**

37/64 = 0.571



**NOTES:**

1) MATERIAL -1: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

-3: AISI 303/304 STAINLESS STEEL SHEET  
PER AMS 5513 OR AMS 5524  
REF DART SPEC M303/304S

OR: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

2) FINISH: POWDER COAT FIRE RED (4.3.5.10) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER

7) WEIGHT -1: 0.26 lbs  
-3: 0.23 lbs

**RELEASED**  
09/05/26

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.		D3954	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.05.26	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

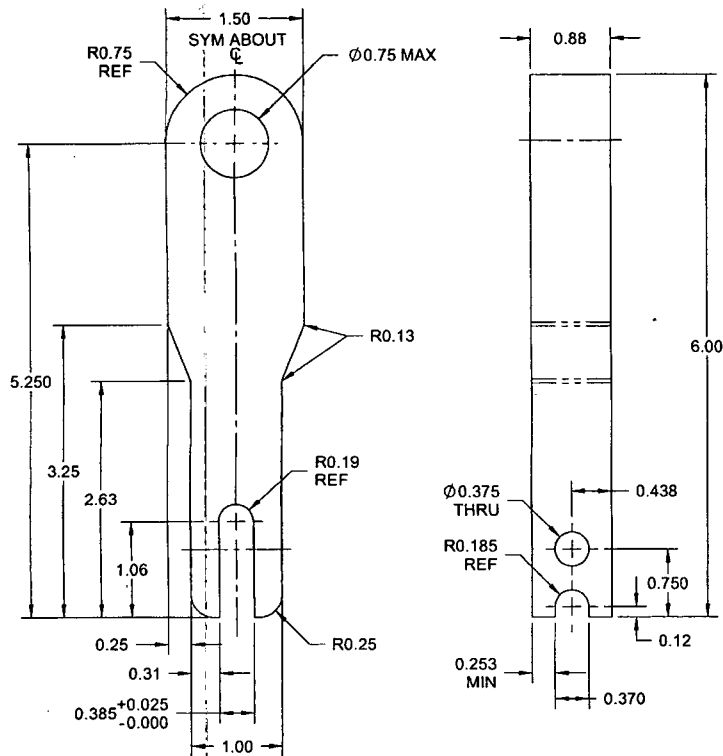
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

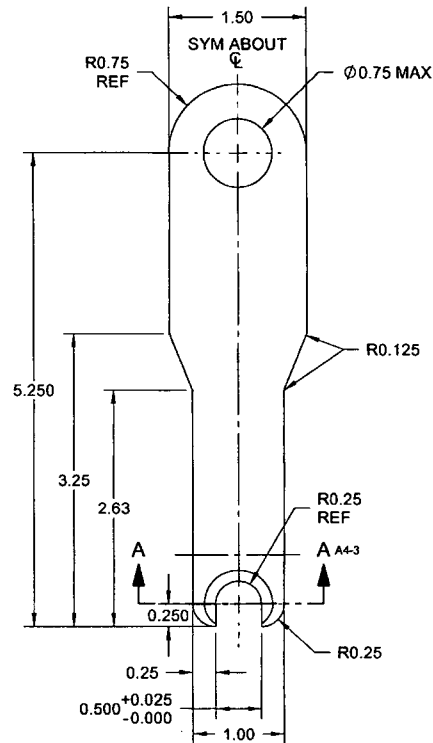
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

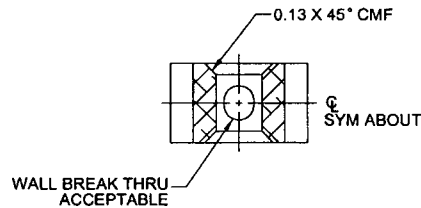




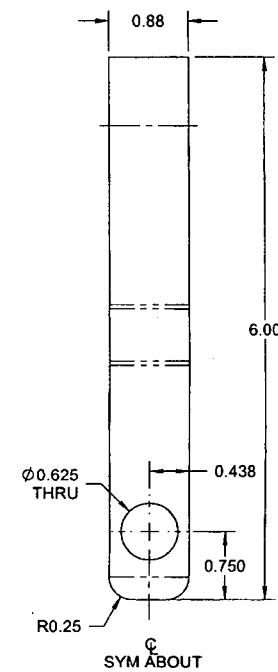
**D3954-5 CHAIN LUG**



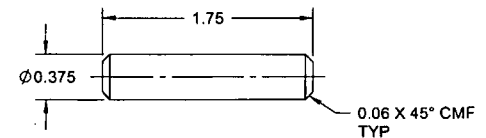
**D3954-7 RATCHET LUG**



**SECTION A-A** C3-3



**D3954-9 GWT CHAIN PIN**



**NOTES:**

1) MATERIAL -5/-7: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

-9: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

2) FINISH -7 ONLY: POWDER COAT FIRE RED (4.3.5.10) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED


5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER

7) WEIGHT -5/-7: 1.56 lbs EACH

-9: 0.05 lbs

**RELEASED**  
07/06/02

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3954	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.05.26	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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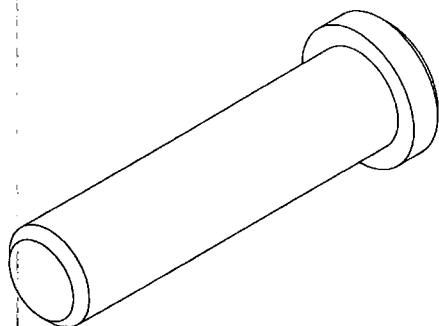
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

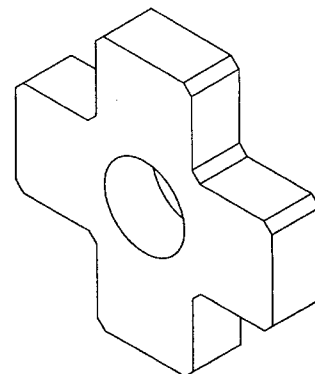
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

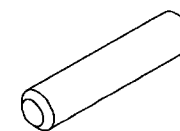
**NOTE:** Date & initial all entries



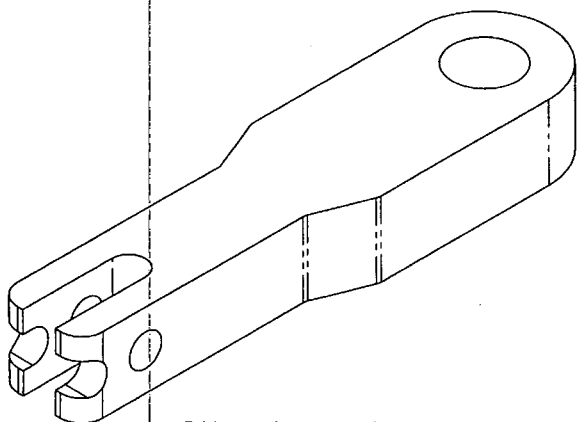
**D3954-1 GWT PIN**



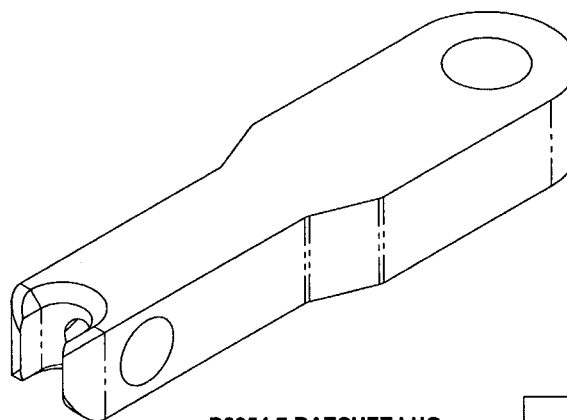
**D3954-3 GWT KNOB**



**D3954-9 GWT CHAIN PIN**



**D3954-5 CHAIN LUG**

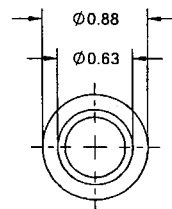


**D3954-7 RATCHET LUG**

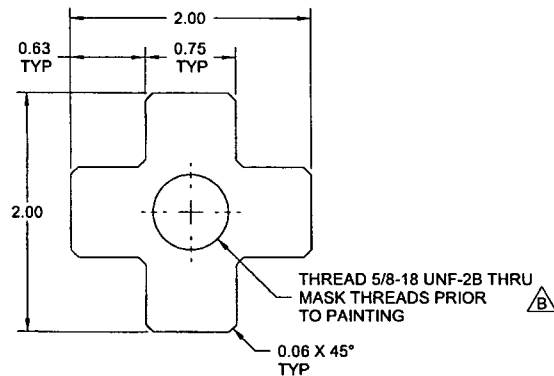
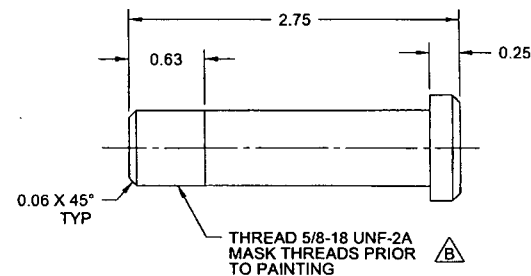
52103

**RELEASED**  
2009-10-19  
MP

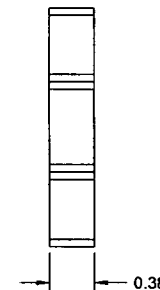
B	MATERIAL UPDATE FOR ALL COMPONENTS WAS STAINLESS STEEL IS CARBON STEEL FOR ALL COMPONENTS. FINISH FOR ALL COMPONENTS WAS RED POWDER COAT IS YELLOW SPRAY PAINT.		AJS	09.10.15
A	NEW ISSUE		AJS	09.05.26
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>		
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA		
CHECKED		DRAWING NO.	REV. B	
MFG. APPR.		D3954	SHEET 1 OF 3	
APPROVED		TITLE	SCALE	
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS	
DATE	09.10.15	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>		



**D3954-1 GWT PIN**



**D3954-3 GWT KNOB**



**NOTES:**

1) MATERIAL -1: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

-3: AISI 1010-1025 MILD STEEL SHEET  
PER DART SPEC MS1010-S

OR: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

**ALTERNATE MATERIAL:**




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REF DART SPEC M303/304R

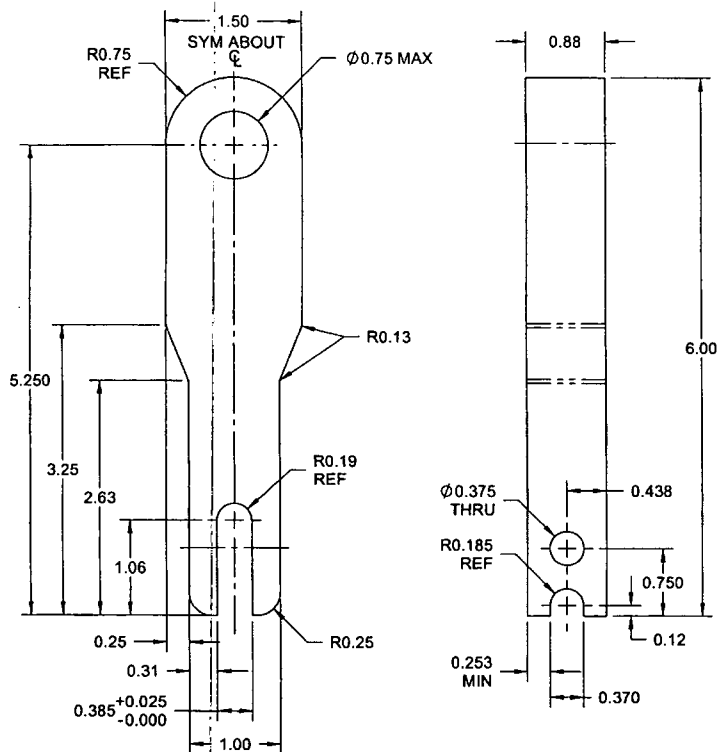
-3: AISI 303/304 STAINLESS STEEL SHEET  
REF DART SPEC M303/304S

OR: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -1: 0.26 lbs  
-3: 0.23 lbs

52103 RELEASED  
2009-10-19

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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**D3954-5 CHAIN LUG**

**NOTES:**

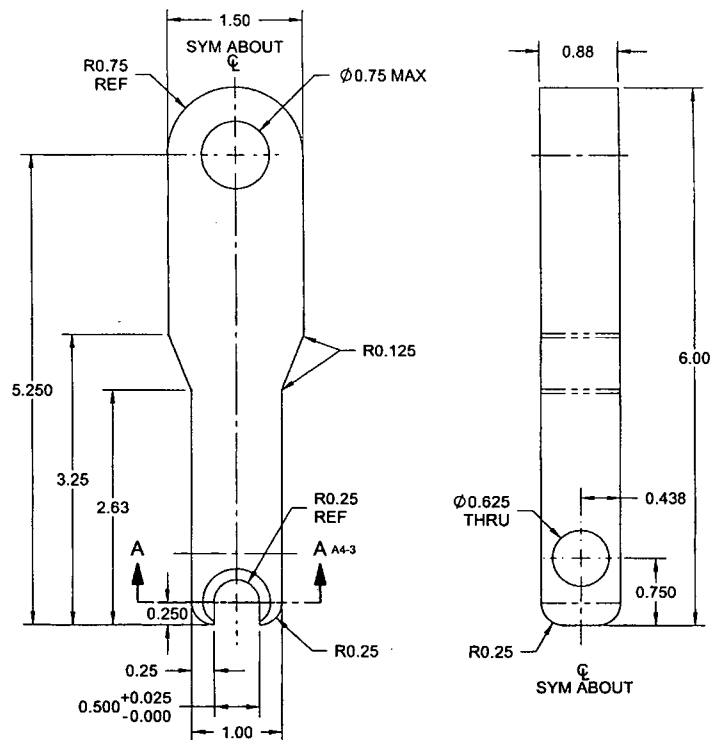
1) MATERIAL: -5/-7: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

9: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

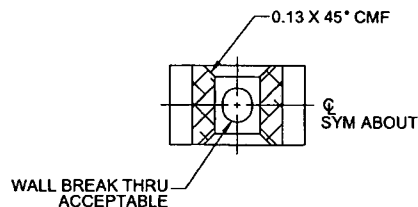
ALTERNATE MATERIAL:  
-5/-7: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

-9: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

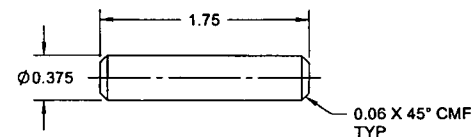
- 2) FINISH -7 ONLY: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -5/-7: 1.56 lbs EACH  
-9: 0.05 lbs



**D3954-7 RATCHET LUG**



**SECTION A-A** C3-3



**D3954-9 GWT CHAIN PIN**

**RELEASED**  
2009-10-19

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	